

REMARKS

In response to the Office Action mailed on April 12, 2006, Applicants cancelled claims 24-32 and added new claims 34-39. Accordingly, claims 1-23 and 33-39 are presented for examination.

During a telephone conversation on April 7, 2006, Applicants made a provisional election without traverse to prosecute the claims of Group I, Species SO₃H (claims 1-23, 33) as identified by the Examiner. Applicants hereby affirm this election without traverse. Regarding the species election indicated at page two of the Office Action, Applicants believe that the Examiner intended to refer to claim 33 and not claim 1.

The Examiner objected to the Abstract of the specification. Applicants submitted a new Abstract, and request withdrawal of the objection.

The Examiner rejected claims 1-3, 5-6, 11-12, 18-23, and 33 under 35 U.S.C. § 102(a) as being anticipated by Barton et al., U.S. 2003/0157397 (“Barton”). Claims 1-3, 5-6, 11-12, 18-23, and 33 require a diffusion layer (e.g., a fuel cell diffusion layer) and an acid moiety (e.g., a sulfonic acid moiety) covalently bonded to the diffusion layer. In contrast, Barton discloses gas diffusion backings for fuel cells that include a carbon paper or fabric immersed in a solution or dispersion of a fluorinated polymer for a period of time sufficient for the carbon paper or fabric to absorb the desired amount of the first fluorinated polymer. (Barton, par. 0075.) Barton’s fluorinated polymer can include pendant sulfonic acid moieties. (See, e.g., id., par. 0064.) However, Barton’s sulfonic acid moieties are not covalently bonded to his gas diffusion backing. Instead, Barton’s sulfonic acid moieties are part of his fluorinated polymer, which is used to “coat the individual fibrils” (id., par. 0077) of his carbon paper or fabric. (See also, e.g., id., Fig. 1A.) Thus, Applicants request reconsideration and withdrawal of the rejection of claims 1-3, 5-6, 11-12, 18-23, and 33.

The Examiner rejected claim 4, 10 and 13-17 under 35 U.S.C. § 103(a) as being unpatentable over Barton. Claims 4, 10 and 13-17 require a fuel cell diffusion layer and a sulfonic acid moiety covalently bonded to the diffusion layer. As explained above, Barton does not disclose a fuel cell diffusion layer and a sulfonic acid moiety covalently bonded to the

diffusion layer. Nor is there any suggestion to modify Barton to provide such subject matter. Accordingly, Applicants request reconsideration and withdrawal of the rejection of claims 4, 10 and 13-17.

The Examiner rejected claims 7-9 under 35 U.S.C. § 103(a) as being unpatentable over Barton in view of Yasumoto et al., U.S. 2003/0198860 ("Yasumoto"). Claims 7-9 require a fuel cell diffusion layer and a sulfonic acid moiety covalently bonded to the diffusion layer. As explained above, Barton does not disclose or suggest a fuel cell diffusion layer and a sulfonic acid moiety covalently bonded to the diffusion layer. Yasumoto does not cure Barton's deficiencies, at least because, like Barton, Yasumoto does not disclose or suggest a fuel cell diffusion layer and a sulfonic acid moiety covalently bonded to the diffusion layer. Thus, neither Barton nor Yasumoto, alone or in combination, discloses or suggests the subject matter covered by claims 7-9, and there is no suggestion to combine these references to provide such subject matter. Even if the references were combined, the result would not be the subject matter covered by claims 7-9. Applicants therefore request reconsideration and withdrawal of the rejection of claims 7-9.

Applicants believe that the application is currently in condition for allowance, which action is requested. Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,



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